

**X(4140)** $I^G(J^{PC}) = 0^+(?^+)$ 

## OMITTED FROM SUMMARY TABLE

Needs confirmation.

Seen by AALTONEN 09AH in the  $B^+ \rightarrow XK^+$ ,  $X \rightarrow J/\psi\phi$ .Not seen by SHEN 10 in  $\gamma\gamma \rightarrow J/\psi\phi$  or AAIJ 12AA in  $B^+ \rightarrow J/\psi\phi K^+$ .

NODE=M193

**X(4140) MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
<b>• • •</b> We do not use the following data for averages, fits, limits, etc. <b>• • •</b>				
4143.0 $\pm$ 2.9 $\pm$ 1.2	14 $\pm$ 5	1 AALTONEN 09AH CDF	$B^+ \rightarrow J/\psi\phi K^+$	
<b>1</b> Statistical significance of 3.8 $\sigma$ .				

NODE=M193M

NODE=M193M

NODE=M193M;LINKAGE=AA

NODE=M193W

NODE=M193W

NODE=M193W;LINKAGE=AA

NODE=M193215;NODE=M193

**X(4140) DECAY MODES**

Mode	Fraction ( $\Gamma_i/\Gamma$ )
$\Gamma_1 J/\psi\phi$	not seen
$\Gamma_2 \gamma\gamma$	not seen

DESIG=1

DESIG=2

NODE=M193220

NODE=M193G01

NODE=M193G01

OCCUR=2

NODE=M193G01;LINKAGE=S0

NODE=M193G01;LINKAGE=S2

NODE=M193225

NODE=M193R01

NODE=M193R01

NODE=M193R01;LINKAGE=AI

NODE=M193R01;LINKAGE=AA

NODE=M193R02

NODE=M193R02

**X(4140) BRANCHING RATIOS**

$\Gamma(J/\psi\phi)/\Gamma_{\text{total}}$	$\Gamma_2\Gamma_1/\Gamma$
VALUE	EVTS DOCUMENT ID TECN COMMENT
<b>not seen</b> [seen OUR 2012 BEST LIMIT]	
not seen	5 AAIJ 12AA LHCb $pp \rightarrow B^+ X$ at 7 TeV
<b>• • •</b> We do not use the following data for averages, fits, limits, etc. <b>• • •</b>	
seen	14 $\pm$ 5 6 AALTONEN 09AH CDF $B^+ \rightarrow J/\psi\phi K^+$
5 Reported $B(B^+ \rightarrow X(4140)K^+) \cdot B(X(4140) \rightarrow J/\psi\phi)/B(B^+ \rightarrow J/\psi\phi K^+) < 0.07$ at 90% CL.	
6 Statistical significance of 3.8 $\sigma$ .	

NODE=M193

REFID=54263

REFID=53235

REFID=52968

**X(4140) REFERENCES**

AAIJ	12AA PR D85 091103	R. Aaij <i>et al.</i>	(LHCb Collab.)
SHEN	10 PRL 104 112004	C.P. Shen <i>et al.</i>	(BELLE Collab.)
AALTONEN	09AH PRL 102 242002	T. Aaltonen <i>et al.</i>	(CDF Collab.)